

REMARKS

Claims 1-4, 6-12, 14-19, 21-25, 27-32, 34-39, 41-47, and 49-53 are pending. Claims 4, 12, 19, 25, 32, 39, 45-46, and 49-51 have been canceled, and claims 1, 10, 17, 23, 30, 37, 52, and 53 have been amended, leaving claims 1-3, 6-11, 14-18, 21-24, 27-31, 34-38, 41-44, 52, and 53 for consideration upon entry of the present Amendment.

The claims have been amended to recite a limitation with regard to the amount of poly(arylene ether) and to include a physical property of the blend. Support for this amendment can at least be found in Claim 2 as originally filed as well as in Paragraph [0029] as originally filed.

No new matter has been introduced by these amendments. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 1-4, 7-12, 31, 15-16, 30-32, 34-35, 37-39, 42-47, and 49-53 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over United States Patent No. 4,927,859 to Weber in combination with United States Patent No. 4,350,793 to Schmidt, et al. (Schmidt) and United States Patent No. 5,525,636 to Henn, et al. (Henn). Applicants respectfully traverse this rejection.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, must contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art must have had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Applicants have amended the independent claims in an effort to more particularly point

out and distinctly claim the invention as a whole. In particular, the amended claims require the presence of poly(arylene ether) in an amount of 30 to 60 weight percent, based on the weight of the blend, that the blend be made in a particular manner, and further require that the expanded blend produces a sound level less than or equal to 60 decibels when tested under the recited conditions. None of the cited references, either singly or in combination provide any expectation of success if attaining such a low sound level as all of the references are silent with regard to the “squeakiness” of the expanded material. Where there is no teaching it is difficult to understand how there can be an expectation of success -

Furthermore, Applicants feel compelled to point out that the Examiner cannot use the Applicants’ disclosure to select portions of the cited references to allegedly arrive at Applicant’s invention because, in doing so, the Examiner fails to consider the teachings of the references or Applicant’s invention as a whole in contravention of section 103, including the disclosures of the references which teach away from Applicant’s invention.

In making the rejection the Examiner has chosen various sections of the prior art to assemble an alleged case of prima facie case of obviousness. The Examiner has used Weber as the primary reference despite the fact that Weber discloses that the blowing agent is incorporated by impregnation (suspension method) with a blowing agent (Col. 3, line 59 to Col. 4, line 8). It is well understood in the art that the method of making an expandable or expanded composition, particularly a multicomponent composition, can materially affect the resulting material. The pending claims require that the blowing agent is incorporated by melt blending and the comparative examples in the pending application point to the importance of the method as two comparative example made by methods other than melt blending show sound levels greater than 60 decibels.

Weber further fails to disclose the flame retardants recited in some of the dependent claims. More particularly, Weber discloses a triphenyl phosphine oxide (Col. 3, lines 48-49) which is structurally different from the instantly claims organophosphate esters.

Schmidt and Henn have apparently been cited for their teachings with regard to polystyrene molecular weight. The combination of these references with Weber is problematic though. Schmidt is directed to an extrudable composition which is substantively different than

an expandable or expanded one. Henn is directed to an expanded or expandable polystyrene blend which can optionally include poly(arylene ether). The teachings of Henn regarding polystyrene molecular weight appear to be predicated on a composition that contains no or a relatively minor amount of poly(arylene ether). It's not at all clear that the teachings of Henn necessarily translate to the selected compositions of Weber which have more than 20 weight percent poly(arylene ether).

Even if we assume that the teachings of the references can reasonably be combined Applicants respectfully assert that the pending application demonstrates unexpected results. As shown in the Examples of the pending application the presence and amount of poly(arylene ether) is significant to sound production (Examples 4-6 show decreasing sound levels with increasing poly(arylene ether) amount). Given due consideration this is surprising as poly(arylene ether) is generally acknowledged to be a rigid material and the inclusion of additional amounts of a rigid material in a blend would be expected to increase squeaking, not decrease it. Furthermore, the comparative examples in the pending application show three compositions which, while being expanded poly(arylene ether)/polystyrene blends, have sound levels above 60 decibels (see comparative example 3 – made by a suspension process, comparative example 4 – made by melt blending the blowing agent in the composition, and comparative example 5 – made by imbining the blowing agent.). These comparative examples clearly demonstrate the difficulty and unexpectedness of obtaining an expanded or expandable poly(arylene ether)/polystyrene blend having the instantly claimed sound properties.

For at least the foregoing reasons Applicants respectfully request allowance of the pending claims.

Claims 6, 14, 17-19, 21-25, 27-29, 36, and 41 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over United States Patent No. 4,927,859 to Weber in combination with United States Patent No. 4,350,793 to Schmidt, et al. (Schmidt) and United States Patent No. 5,525,636 to Henn, et al. (Henn) and further in view of Allen. Applicants respectfully traverse this rejection.

Weber, Schmidt, and Henn have been discussed above. Allen does not rectify or cure the issues discussed above as Allen is directed to a structural foam sheet that is foamed at the

die and does not teach or disclose an expandable composition in the form of a pellet as is instantly claimed. In fact, Applicants respectfully request that the Examiner fully explain how Allen is being used in the rejection.

Claims 1-4, 7-12, 15-16, 30-32, 34, 35, 37-39, 42-47, and 49-53 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Weber in combination with Schmidt and Henn and further in combination with United States Patent No. 5,000,891 to Green. Applicants respectfully traverse this rejection.

Weber, Schmidt, and Henn have been discussed above. Green is directed to a method of making expandable polystyrene pellets and it is not clear to the Applicants how Green augments or expands the rejection based on Weber, Schmidt, and Henn alone. Clarification is requested.

Claims 6, 14, 17-19, 20-25, 27-29, 36, and 41 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over United States Patent No. 4,927,859 to Weber in combination with United States Patent No. 4,350,793 to Schmidt, et al. (Schmidt), United States Patent No. 5,525,636 to Henn, et al. (Henn), Allen and further in combination with United States Patent No. 5,000,891 to Green. Applicants respectfully traverse this rejection.

Weber, Schmidt, and Henn have been discussed above. It is not clear to the Applicants how Green or Allen augment or expand the rejection based on Weber, Schmidt, and Henn alone. Clarification is requested.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 50-1131.

Respectfully submitted,

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